

# PATENT SPECIFICATION

DRAWINGS ATTACHED

L115,861



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## COMPLETE SPECIFICATION

### Improvements in or relating to Liquid Dispenser

I, CLIFFORD BREWER BARCLAY, a British subject of "Thornfield" Sandown Park, Tunbridge Wells, Kent, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to a liquid dispenser and particularly but not solely to one which provides a thin film of liquid. The dispenser is particularly suitable for dispensing pre-or after-shave lotion or deoderant but may be equally applicable for dispensing water, gum, paste, paint, varnish, or lacquer.

According to the invention I provide a liquid dispenser comprising a body portion adapted to be attached to a liquid container, and a roller supported at its ends by arms extending from said body portion, said body portion having a bore which enables the dispenser to fit over the neck of the container, said bore being terminated by an end wall which contains an orifice which permits flow of the liquid from the container to the roller.

A constructional form of the invention will now be described by way of example in which the dispenser is intended for use as an after-shave lotion applicator with reference to the accompanying drawings in which:—

Figure 1 is a front sectional view of the dispenser (shown in full) and

Figure 2 is a sectional view taken along the line A—A in Figure 1.

The dispenser is provided with a body portion 10 of plastics material having a threaded bore 11 at one end by which the body can be screwed onto the neck of a flexible walled bottle B. The bore is closed at its inner end by an end wall 12 except for an orifice 13 passing through the end wall to the other end of the body. The diameter of the orifice is selected according to the viscosity of the liquid to be dispensed or may be between one sixth and one eighth the dia-

meter of the bore whereby a bush 14 may be fitted having a plastic tube 9 extending down to the bottom of the container so that dispensing may be effected without tipping the container.

The orifice communicates with a trough 15 (via a non-return valve when necessary) formed diametrically across the body, which trough is adjacent a roller 16 mounted on a pair of arms 18, 19 extending on each side of said body and formed integrally therewith. The roller 16 is arranged to run in a curved recess 20 formed partly in said body and partly in the arms, the curvature of said recess being substantially of the same radius as that of the roller.

The arms are provided with bores 22, 23 which receive cylindrical bearing elements 24, 25 provided at the ends of the roller. The radius of the recess and the position of the bores in the arms are such that between one third and one half of the surface of the roller is always covered. Between one third and one half of the roller circumference extends beyond the curved end of the arms whereby the roller may contact the user's face without interference from the extreme ends of the arms.

The roller has a core 26 made of polythene or nylon and an outer layer 27 of polythene foam so that it readily absorbs the lotion from the trough. The roller and/or the arms are of such resilience to enable the bearing elements to be forced between the arms into their bores where they rotate freely with the roller.

The user simply tips the bottle, or, in the case where the plastic tube is fitted, squeezes the bottle, so that the lotion passes through the orifice and spreads along the trough. The lotion is now absorbed by the foam surface of the roller as the latter is rotated.

The dispenser may be supplied on a con-

tainer and refills provided with suitable threaded necks.

WHAT I CLAIM IS:—

5 1. A liquid dispenser comprising a body portion adapted to be attached to a liquid container, and a roller supported at its ends by arms extending from said body portion, said body portion having a bore which enables the dispenser to fit over the neck of  
10 the container, said bore being terminated by an end wall which contains an orifice which permits flow of the liquid from the container to the roller.

15 2. A liquid dispenser as claimed in claim 1, wherein said body is provided with an elongated trough substantially the same length as the roller and parallel thereto, said trough communicating with said orifice and said roller being supported by said arms in close proximity to said trough and in such a manner  
20 that the surface of said roller receives the liquid in the trough as the roller rotates.

25 3. A liquid dispenser as claimed in claim 1 or 2, wherein the body is provided with a curved recess having substantially the same length as the roller and having a radius substantially equal to that of the roller, said recess being so dimensioned in relation to the

roller that from one third to one half of the surface of the roller is covered by the body. 30

4. A liquid dispenser as claimed in any one of the preceding claims, wherein the ends of the arms are curved and from one third to one half of the roller circumference extends  
35 beyond the profile of the curved ends of the arms.

5. A liquid dispenser as claimed in any of the preceding claims wherein the roller includes a core made of polythene or nylon and an outer layer of polythene foam. 40

6. A liquid dispenser as claimed in claim 5 wherein the roller is provided at its ends with cylindrical bearing elements which engage in bores provided in the arms, said arms being suitably resilient so that the roller can  
45 be removed.

7. A liquid dispenser substantially as described with reference to the accompanying drawings.

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Reference has been directed in pursuance of Section 9, subsection (1) of the Patents Act, 1949, to patent No: 1,023,517.

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COMPLETE SPECIFICATION

1 SHEET

*This drawing is a reproduction of  
the Original on a reduced scale*

